

REMARKS

Reconsideration of this application in view of the above amendments and the remarks below is respectfully requested. Claims 33, 36, 37, and 45 are amended. No claims are added, or cancelled. Hence, Claims 10, 11, 14-16 and 33-48 are pending in the application.

Each issue raised in the Office Action mailed on December 21, 2007 is addressed herein.

I. ISSUES RELATED TO CITED REFERENCES

A. 35 U.S.C. 102(b) - *BSAIBES*

Claims 10, 11, 33-41 and 45-48 are rejected under 35 U.S.C. 102(b) as allegedly anticipated by *Bsaibes et al.*, U.S. Patent No. 5,701,458 (hereafter "*Bsaibes*"). The rejection is respectfully traversed.

Independent Claim 33

Claim 33 is directed to a method of comparing access control lists to configure a security policy on a network, and recites:

- subtracting two entries among multiple first access control entries in a first access control list from each other;
- determining, from results of subtracting the two entries among the multiple first access control entries in the first access control list from each other, a set of non-overlapping representation for dimensional ranges covered by the two entries among the multiple first access control entries in the first access control list;
- identifying, based on the set of non-overlapping representation, one or more first sub-entries in the first access control list; and
- programmatically determining whether the first access control list is functionally equivalent to a second access control list by determining whether each of the first sub-entries in the first access control list is equivalent to or contained by one or more entries of multiple second access control entries in the second access control list.

Claim 33 recites a number of features that are not anticipated by *Bsaibes*. *Bsaibes* describes an approach to permitting manipulation of an arbitrary set of access control lists in a hierarchical objects structure (*see* Abstract). According to *Bsaibes*, the hierarchical objects structure may be represented as a tree in FIG. 4A or FIG. 4B. A node in the tree may comprise

an access control list as illustrated in FIG. 5 through 8. Thus, there may be as many access control lists as the number of nodes in the tree. *Bsaibes* provides a way that an action performed at a root node may propagate down and alter an arbitrary set of access control lists residing at or underneath the root node.

As disclosed, *Bsaibes* fails to disclose each and every feature of Claim 33.

1. *Bsaibes* Fails to Disclose Identifying Sub-entries in a First Access Control List in Claim 33.

Claim 33 recites “identifying, based on the set of non-overlapping representation, one or more first sub-entries in the first access control list.”

The portion of *Bsaibes*, at col. 5 line 65 -- col. 9 line 9, as cited by the Office Action is too long to be recited in its entirety here. However, after a careful study of the cited passage by Applicant, nothing in that cited passage is found to disclose any subject matter resembling a computer-performed step of identifying sub-entries in an access control list that comprises entries, wherein composition of sub-entries is as defined in Claim 33. Clarification as to which elements of *Bsaibes* correspond to each feature of Claim 33 is respectfully requested.

2. *Bsaibes* Fails to Disclose Programmatically Determining Equivalency of Access Control Lists in Claim 33.

Claim 33 recites “programmatically determining whether the first access control list is functionally equivalent to a second access control list by determining whether each of the first sub-entries in the first access control list is equivalent to or contained by one or more entries of multiple second access control entries in the second access control list.”

The Office Action cites the same, multi-column passage in *Bsaibes* as disclosing the above-recited features of Claim 33. The cited passage again is devoid of subject matter resembling programmatically determining whether the first access control list is functionally equivalent to a second access control list by determining whether each of the first sub-entries in the first access control list is equivalent to or contained by one or more entries of multiple second

access control entries in the second access control list as featured in Claim 33. Since the cited portion of *Bsaibes* is about using a Modify_Delete command to alter an existing access control specification, there is neither motive, nor suggestion, nor any need to compare functional equivalency of two ACLs. In addition, the Office Action has failed to particularly point out which two entities of *Bsaibes* correspond to the two ACLs of Claim 33. Thus, since the Office Action does not identify which two entities of *Bsaibes* correspond to the two ACLs of Claim 33, the Office Action also fails to particularly identify which feature of *Bsaibes* corresponds to comparing any two ACLs for determining functional equivalency.

Applicants are entitled to a reasonable clarification as to where such subject matter in *Bsaibes* that describes programmatically determining whether the first access control list is functionally equivalent to a second access control list by determining whether each of the first sub-entries in the first access control list is equivalent to or contained by one or more entries of multiple second access control entries in the second access control list, as featured in Claim 33.

3. The Cited Portion of *Bsaibes* Fails to Anticipate Claim 33

The cited passage in *Bsaibes* describes how an **arbitrary** set of access control lists may be altered by an action documented in TABLE 1 of the reference (*see* col. 7, lines 30-64). For example, an action may be a Modify_Delete (*Id.* at col. 8, line 49). A user “Tim” and a permission “w” may be specified. When such an action is acted on node A, 700, in FIG. 6, Tim’s permission entry in the access control list that is associated with node A is compared with the permission specified with the action (i.e., “Modify_Delete”). *See Bsaibes*, col. 8, lines 52-59. Tim’s “w” permission in the entry in the access control list, if any, is deleted (*Id.*). This may be repeated for every access control list found at or under node A. *See Bsaibes*, col. 8, line 60-col. 9, line 6.

Clearly, *Bsaibes*’s only comparison for the purpose of carrying out this Modify_Delete action is **between** permissions specified in **a command** and permissions specified in **an entry of an access control list**. This is not analogous to determining equivalency **between two access**

control lists. By definition, a Modify_Delete command seeks to modify or delete a portion of an access control list. *Bsaibes* cannot disclose determining equivalency between two ACLs, as featured in Claim 33, since such determining is not disclosed in the cited reference for carrying out a Modify_Delete command, nor is it necessary.

In *Bsaibes*, only a direct comparison between Tim's permissions in his entry in the access control list and a permission specified in the command is needed. Thus, the comparison is not about the equivalency of two ACLs.

Furthermore, there is no disclosure in *Bsaibes* that Tim's existing permission entry in the access control list is to be identified into sub-entries, as featured in Claim 33.

In response, the present Office Action, on page 2, states:

On page 4, the applicant argues that *Bsaibes* does not disclose "programmatically determining whether the first access control list is functionally equivalent to a second access control list by determining whether each of the first sub-entries in the first access control list is equivalent to or contained by one or more entries of multiple second access control entries in the second access control list".

The examiner respectfully disagrees. Referring first to node A, 700, in FIG. 6, comparing Tim's permission at 706 with the corresponding permissions in FIG. 5, it will be noted that Tim permission is modified in FIG. 6 and the write permission (w) is deleted. Similarly, Catherine is modified and granted execute permission in node A of FIG. 6 whereas previously in node A (FIG. 5), she only had read and write permission.

The Office Action fails to link the two examples of modifying user permissions, as disclosed by *Bsaibes*, with the recited features of Claim 33. Indeed, the Office Action essentially contends that *Bsaibes* discloses modifying or deleting permissions of users. Consequently, it would be redundant in *Bsaibes* to determine any equivalency of an access control list with another, since the access control list is to be altered by this Modify-Delete command anyway.

The statement in the Office Action does not establish which entity of *Bsaibes* corresponds to the first access control list in Claim 33, which entity of *Bsaibes* corresponds to the first access control entries in the first access control list, and which entity of *Bsaibes* corresponds to the sub-entries in the first access control list. In addition, the Office Action also

fails to identify which entity of *Bsaibes* as corresponding to the second access control list of Claim 33.

4. *Bsaibes* Fails to Disclose Other Recited Features in Claim 33.

Claim 33 recites “subtracting two entries among multiple first access control entries in a first access control list from each other.” Claim 33 also recites “determining, from results of subtracting the two entries among the multiple first access control entries in the first access control list from each other, a set of non-overlapping representation for dimensional ranges covered by the two entries among the multiple first access control entries in the first access control list.” Claim 33 further recites “identifying, based on the set of non-overlapping representation, one or more first sub-entries in the first access control list.” *Bsaibes* fails to disclose these features.

For the reasons set forth above, since *Bsaibes* fails to disclose at least one recited feature of Claim 33, Claim 33 is patentable over *Bsaibes*.

Claims 36, 37 and 45

Claims 36, 37 and 45 are independent claims that are similar in scope and include all features of method claim 33. Claims 36, 37 and 45 are patentable over *Bsaibes* for at least the same reasons as those given above in connection with claim 33.

Claims 10, 11, 34-41 and 46-48

Claims 10, 11, 34-41 and 46-48 depend from, and hence, incorporate all of the features of claim 33, 36, 37 or 45 that are discussed above. These claims also recite further features that independently render them patentable over *Bsaibes*. However, because *Bsaibes* lacks the features discussed above for claims 33, 36, 37, or 45, claims 10, 11, 34-41 and 46-48 necessarily are patentable over *Bsaibes* for at least the reasons given above in connection with claim 33, 36, 37 or 45.

B. 35 U.S.C. 103(a) – *BSAIBES* and *BRAWN*

Claims 14, 42 and 50 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over

Bsaibes as applied to claims 33, 37 and 45 and further in view of *Brawn* et al., U.S. Patent No. 7,020,718 B2 (hereafter "*Brawn*"). The rejection is respectfully traversed.

Claims 14, 42 and 50 depend from, and hence, incorporate all of the features of claim 33, 36, 37 or 45. Claims 14, 42 and 50 also recite further features that independently render them patentable over *Bsaibes*. *Brawn* fails to disclose any of the features of claim 33, 36, 37 or 45 previously discussed and therefore *Brown* does not cure the deficiencies of *Bsaibes* that are described above, and any combination of *Brown* and *Bsaibes* necessarily cannot provide the complete subject matter of claims 14, 42, and 50. Claims 14, 42, and 50 are patentable over *Bsaibes* and *Brawn* for at least the reasons given above in connection with claim 33, 36, 37 or 45.

C. 35 U.S.C. 103(a) – BSAIBES and MATE

Claims 15, 43 and 51 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over *Bsaibes* as applied to claims 33, 37 and 45, and further in view of *Mate* et al., U.S. Patent No. 7,028,098 B2 (hereinafter "*Mate*"). The rejection is respectfully traversed.

Claims 15, 43 and 51 depend from and incorporate all of the features of claim 33, 36, 37 or 45. Claims 15, 43, and 51 also recite further features that render them patentable over *Bsaibes*. *Mate* fails to disclose any of the features of claim 33, 36, 37 or 45 previously discussed, and therefore *Mate* does not cure the deficiencies of *Bsaibes* that are described above, and any combination of *Mate* and *Bsaibes* necessarily cannot provide the complete subject matter of claims 15, 43, and 51. Claims 15, 43, and 51 are patentable over *Bsaibes* and *Mate* for at least the reasons given above in connection with claim 33, 36, 37 or 45.

D. 35 U.S.C. 103(a) – BSAIBES and BANGINWAR

Claims 16, 44 and 52 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over *Bsaibes* as applied to claims 33, 37 and 45, and further in view of *Banginwar*, U.S. Patent No. 6,611,863 (hereafter "*Banginwar*"). The rejection is respectfully traversed.

Claims 16, 44 and 52 depend from, and hence, incorporate all of the features of claim 33, 36, 37 or 45. Claims 16, 44, and 52 also recite further features that render them patentable over *Bsaibes*. *Banginwar* fails to disclose any of the features of claim 33, 36, 37 or 45 previously discussed and therefore *Banginwar* does not cure the deficiencies of *Bsaibes* that are described above, and any combination of *Banginwar* and *Bsaibes* necessarily cannot provide the complete subject matter of claims 16, 44, and 52. Claims 16, 44, and 52 are patentable over *Bsaibes* and *Banginwar* for at least the reasons given above in connection with claim 33, 36, 37 or 45.

II. CONCLUSIONS

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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